

ENGLISH



**ARCAM**

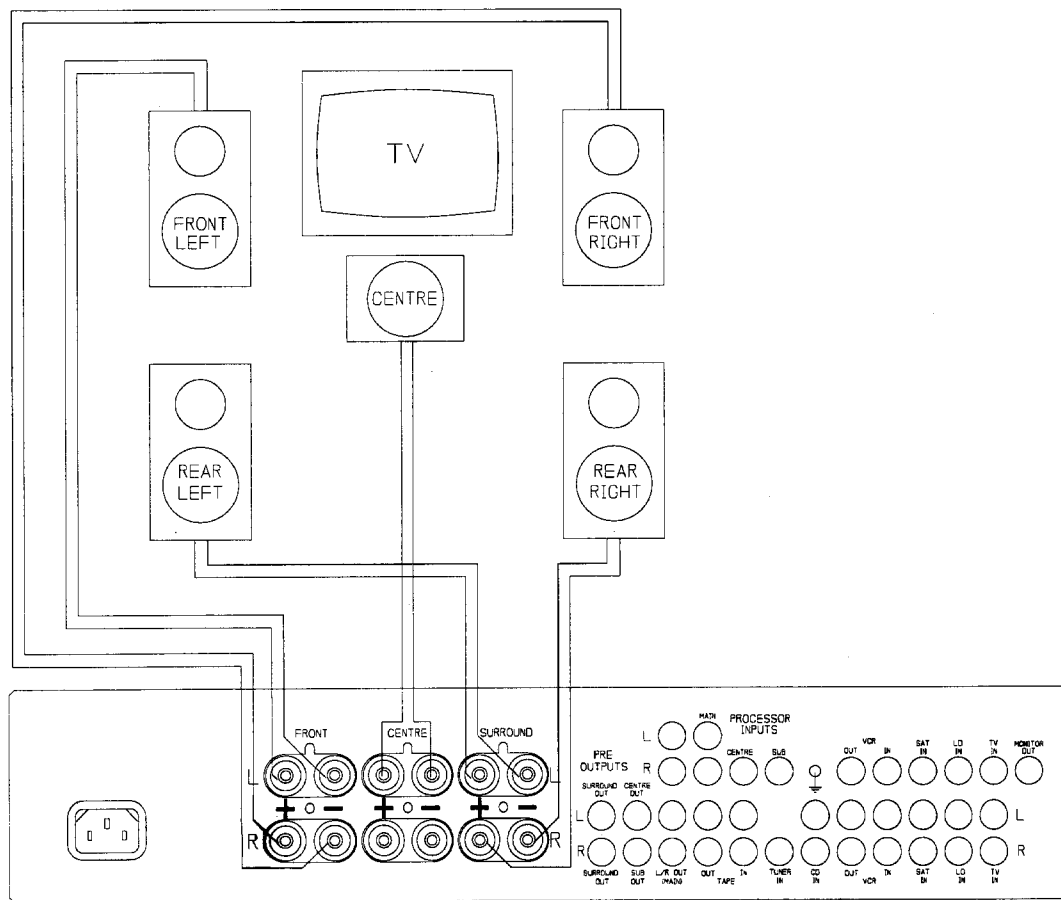
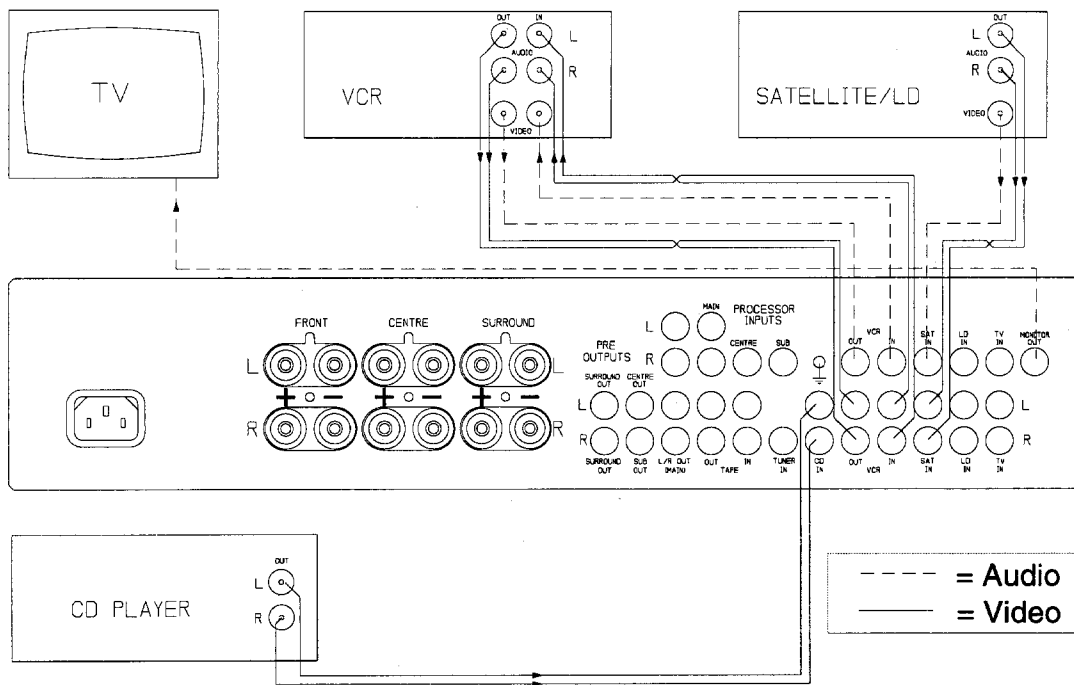
**ALPHA AV50 HOME CINEMA  
AMPLIFIER HANDBOOK**

**SAFETY INSTRUCTIONS**

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of:

1. **Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow Instructions** - All operating and use instructions should be followed.
5. **Water and Moisture** - The appliance should not be used near water - for example near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool, etc.
6. **Carts and Stands** - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
- 6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
7. **Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. **Ventilation** - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug or similar surface that may block the ventilation openings or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. **Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves or other appliances (including amplifiers) that produce heat.
10. **Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. **Grounding** - Precautions should be taken so that the grounding means of the appliance is not defeated.
12. **Power-Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles and the point where they exit from the appliance.
13. **Cleaning** - Unplug the unit from the mains supply before cleaning. The appliance should normally only require a wipe over with a clean, dry, lint-free cloth. If it is heavily soiled then a cloth slightly dampened with a water/washing up liquid solution may be used. Dry the unit afterwards with a dry cloth. We do not advise the use of furniture type cleaning sprays/polishes as this can cause white marks, which are very difficult to remove, if the unit is then wiped over with water.
14. **Power Lines** - An outdoor antenna/ aerial should be located away from power lines.
15. **Non-use Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
16. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through any openings.
17. **Abnormal Smell** - If an abnormal smell or smoke is detected from the appliance, immediately turn the power off and unplug the unit from the wall outlet. Contact your dealer immediately.
18. **Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
  - A. The power-supply cord or the plug has been damaged or:
  - B. Objects have fallen, or liquid has spilled into the appliance or:
  - C. The appliance has been exposed to rain or:
  - D. The appliance does not appear to operate normally or exhibits a marked change in performance or:
  - E. The appliance has been dropped or the enclosure damaged.
19. **Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

# Basic Wiring Diagrams



**INTRODUCTION**

Thank you for purchasing this Arcam product.

The Alpha AV50 is a sophisticated Home Cinema Dolby Pro Logic amplifier which offers superb sound and picture quality.

The Alpha AV50 is a little more complex to connect up than an ordinary amplifier. Please read these instructions carefully. Throughout this booklet there are diagrams of the Alpha AV50 front and rear panels. Each input and output is clearly numbered. The numbers correspond with those given in the instructions.

A combination of your Hi Fi and video components can be connected to the Alpha AV50 - including the video inputs and outputs of your TV, video recorder, satellite decoder or laserdisc player. Switching inputs on the Alpha AV50 can also change the picture on your TV screen to match the source that you are listening to.

Please follow these instructions carefully and you'll have your Alpha AV50 up and running in no time at all!

For ease of use, the Alpha AV50 is supplied with a CR45 infra-red remote control handset. Many functions are only available via the remote control.

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3,959,590; Canadian numbers 1,004,603 and 1,037,877.  
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Licensing Corporation.

**LOCATING YOUR LOUSPEAKERS**

With the increasing integration of hi-fi and video equipment, it is now possible to recreate all the involvement and excitement of a visit to the cinema in the intimacy of your living room. A true Home Cinema set up conforming to Dolby Surround requirements will need five loudspeakers in order to recreate the surround sound experience: a front pair, a rear pair and a centre channel.

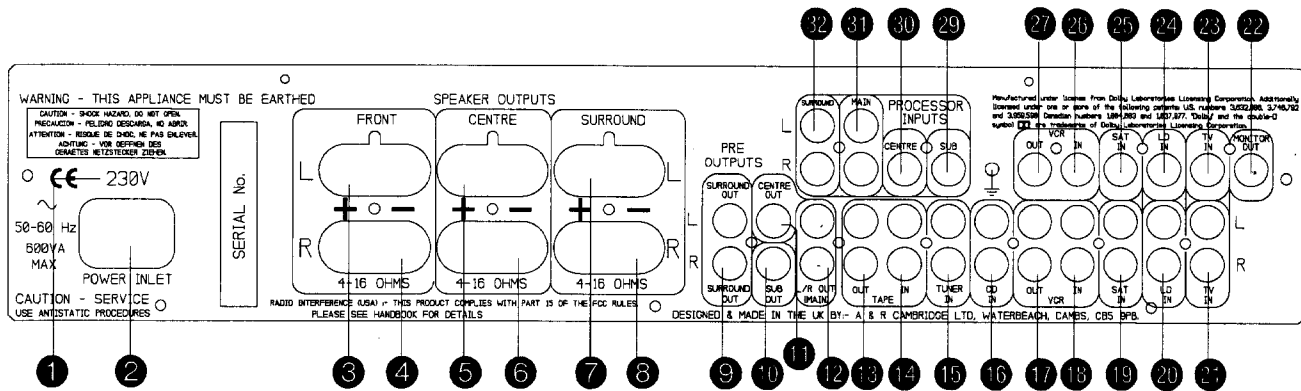
If you have them, you will probably use your present stereo loudspeakers as the main front loudspeakers. These should be positioned roughly equidistant to, and either side of your TV and typically 8-10 feet (2.4 - 3m) apart. The centre loudspeaker must be located close to your TV screen so that the picture and centre sound come from the same location.

In a Home Cinema setup, the centre speaker is very important, as much of the sound comes from this source.

The rear surround loudspeakers should ideally be placed behind the listening position or, if this is not possible, then to either side. The object of the rear speakers is to produce a diffuse, room filling sound. Locate the rear loudspeakers away from you and above your head so that they do not fire directly into your ears. The addition of a subwoofer to enhance the bass end of your system should also be considered. The location of a subwoofer is less critical but should follow the manufacturer's recommendations.

**PROBLEMS?**

If your dealer is unable to answer any query regarding this or any other Arcam product please contact Arcam Customer Support on +44 (0)1223 203203 or write to us at the address on the back cover of this handbook and we will do our best to help you.



## INSTALLATION

Circled letters or numbers e.g. ② refer to items on the diagrams situated above the corresponding text.

- ① Check that your mains supply voltage agrees with the voltage setting indicated on the rear panel of the unit.
  - If your mains supply voltage is different, consult your Arcam dealer or Arcam Customer Support on one of the numbers on the back cover of this handbook.

## MAINS SAFETY

- This product is normally supplied with a moulded mains plug already fitted to the lead. If for any reason the plug needs to be removed, it must be disposed of immediately and securely, as it is a potential shock hazard when inserted into a mains socket.

## NOTICE FOR UK OWNERS ONLY

- If the plug is removed then the remaining lead must be wired as follows:

The **blue** wire must be connected to the terminal which is coloured **blue** or marked with the letter **N**.  
 The **brown** wire must be connected to the terminal which is coloured **brown** or marked with the letter **L**.  
 The **green and yellow** wire must be connected to the terminal which is coloured **green and yellow**, or marked with the letter **E** or the safety earth symbol.

- When replacing the fuse in the supplied moulded mains plug, the integral fuse holder/cover must always be refitted. Use a 5 amp fuse (UK models only).
- **Warning:** This apparatus must be earthed.

## MAINS SUPPLY CONNECTIONS

- ② Insert the IEC line socket of the mains lead fully into the power inlet on the rear panel. Connect the other end to your mains supply.

## LOUDSPEAKER CONNECTIONS

- This amplifier is fitted with BFA (British Federation of Audio) loudspeaker connectors, which are designed to meet EU safety standards. The connector will accept spade terminals, bare wires up to 4mm in diameter or a BFA plug. BFA plugs are available from your Arcam dealer.
- Insert the red (positive) plugs of your speaker leads into the red terminals and the other plugs into the black terminals. If your speaker cable has bare ends, the positive conductor can usually be identified by a ridge or coloured marking. **Ensure that no stray strands are allowed to touch another cable or the amplifier's casing.** This can cause a short circuit and damage your amplifier! The loudspeaker terminals are marked as follows:

- ③, ④ **FRONT** - Connect your front pair of speakers here. This usually means your existing stereo pair. Connect terminals ③ to your left speaker and terminals ④ to your right speaker ensuring correct polarity.
- ⑤, ⑥ **CENTRE** - Connect your centre speaker(s) here. In some systems, particularly where a large screen TV is used (around 1.0m / 37" or larger), you may wish to use two centre speakers - one above and one below the TV. Ensure the centre speaker(s) are magnetically shielded, or the pictures on the TV tube could become permanently discoloured. Alternatively the two pairs of sockets can be used to bi-wire one centre speaker if it has separate terminals for the bass and treble drivers.
- ⑦, ⑧ **SURROUND** - Connect your two rear surround speakers here. Connect terminals ⑦ to your left rear speaker and terminals ⑧ to your right rear speaker, seen as you face the screen, ensuring correct polarity.

## CONNECTING YOUR SOURCE COMPONENTS

- Audio inputs: Up to 7 different audio sources can be connected to the Alpha AV50. Four inputs are available for simultaneous audio and composite video, and three for audio only. All inputs have the same sensitivity and may be used with equipment other than that labelled, if you need to do so.

- Video inputs: Up to 4 different video sources can be connected to the Alpha AV50 - VCR, LD or DVD, Satellite and TV. This allows you to select the TV picture and sound together and is particularly useful if your TV has only one video input.

## AUDIO CONNECTIONS

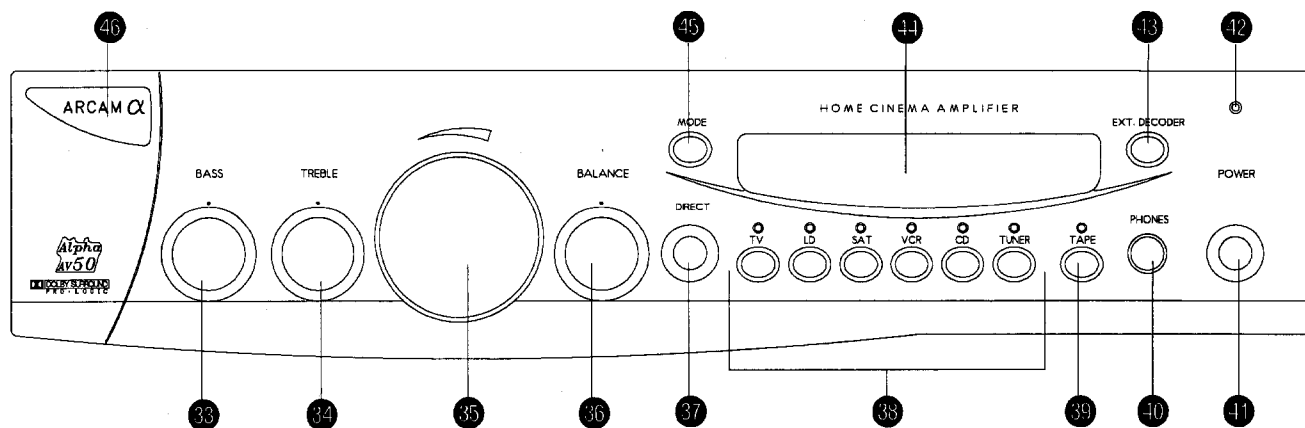
- Using a suitable pair of interconnect cables to connect each component, insert the red phono plugs into the appropriate sockets labelled 'R' and the other plugs into the sockets labelled 'L'.
- TAPE OUT - Connect this output to the input of your cassette deck (usually labelled RECORD or IN).
  - TAPE IN - Connect this input to the output of your cassette deck (usually labelled PLAY or OUT).
  - TUNER IN - Connect this input to your radio tuner's audio output.
  - CD IN - Connect this input to the analogue outputs of your CD player or external DAC.
  - VCR OUT - Connect this output to the audio input of your video recorder (VCR).
  - VCR IN - Connect this input to the audio output of your VCR.
  - SAT IN - Connect this input to your Satellite TV decoder's audio output.
  - LD IN - This input is compatible with Laserdisc (LD), Compact Disc Interactive (CD-I), DVD or a Video CD player. Connect this input to the audio output of the player.
  - TV IN - Connect this input to the audio output sockets of your TV set.

## 29 - 32 External Processor Inputs

These sockets permit access to each of the five internal power amplifiers within the AV50 via the volume control. This allows the AV50 to be used with future 5.1 style discrete multichannel audio sources such as Dolby Digital AC-3 or Digital Theater Systems' (DTS) Coherent Acoustics. See section "Connecting the AV50 to an external 5.1 channel decoder" for more details.

## COMPOSITE VIDEO CONNECTIONS

- You will need suitable 75 ohm composite video cables to connect your equipment to the composite video inputs and outputs. These should be terminated with phono plugs at the ends connected to the AV50. Consult your equipment manuals for the connections required to your other equipment.
- MONITOR OUTPUT - Connect this output to your TV composite video input. Most TVs only have SCART sockets, others use a phono socket or BNC connector. You will need a suitable lead or use an adaptor to make this connection. If in doubt consult your dealer.
  - TV IN - You may connect this input to the output of your TV, but it may also be used for a camcorder, VCR, laserdisc, etc. Connect this input to the composite video output of your unit.
  - LD IN - Connect this input to the video input of your laser disc. This input is also compatible with CD-I, DVD or a Video CD player.
  - SAT IN - Connect this input to the composite video output of your satellite TV decoder.
  - VCR IN - Connect this input to the video output of your VCR.
  - VCR OUT - Connect this output to the video input of your VCR.



- 33 BASS - Rotate clockwise to boost the bass response and anti-clockwise to cut the bass response. For a flat response leave in the central 'click' position.
- 34 TREBLE - Rotate clockwise to boost the treble response and anti-clockwise to cut the treble response. For a flat response leave in the central 'click' position.
- 35 VOLUME - Adjusts the volume level of all the loudspeaker and preamp outputs simultaneously.
- 36 BALANCE - Rotate clockwise or anti-clockwise to move the position of the stereo image. This may be necessary if it is not possible to sit centrally between the speakers. In normal use leave it in the central 'click' position. The BALANCE control will only affect the left and right front speakers and headphones, assuming that DIRECT is not switched in.

Note that bass, treble and balance controls will affect the main left and right loudspeakers only.

- 37 DIRECT - Pressing in bypasses the bass, treble and balance controls in all modes.
- 38 SOURCE SWITCHES - Use to select the input you wish to listen to or record from (see RECORDING below also). The LED above the input switch will light to indicate which input is currently selected.

## RECORDING

The audio signal of the selected input is also sent to the TAPE OUT and VCR OUT sockets. This enables you to record from CD on to a video cassette recorder or the audio of a laser disc on to a tape cassette recorder. It is possible to record from VCR to TAPE but **not** to record from TAPE on to the VCR.

- 39 TAPE - Allows you to hear the input as it is being recorded on your audio tape deck. If it is a 3 head cassette deck, switching its monitor button in/out will allow you to compare the original signal with the recording. The TAPE button **overrides** any other selected input.

- 40 HEADPHONES - This socket accepts headphones rated between 8 ohms and 2k ohms fitted with a 6.3mm stereo jack plug. If your headphones are fitted with a different plug contact your dealer for a suitable adaptor. Plugging in a pair of headphones automatically mutes all the loudspeaker outputs and the MODE defaults to STEREO. It does not mute the LEFT/RIGHT preamp out or SUB OUT sockets.
- 41 POWER - Switches the Alpha AV50 fully on or off. When this switch is on the AV50 may be put in to standby mode with the remote control handset.
- 43 EXT DECODER SWITCH - This switch allows access to the AV50's internal power amplifiers via the volume control. The PROCESSOR legend on the LCD display will illuminate and all others will blank, except for the centre, rear and left/right MUTE legends if active, when the EXT DECODER switch is operated. N.B. This switch cannot be operated by remote control.
- 45 MODE SWITCH - Enables switching between Dolby Pro Logic, Dolby 3 Stereo and Stereo. This button has no function if headphones are plugged in.
- 46 REMOTE RECEIVER - This is housed behind the badge in the top left hand corner of the amplifier. Ensure the remote receiver is not obscured or commands from the remote control handset will not be received.

## FRONT PANEL DISPLAYS

- 42 POWER LED - Upon switching on, the POWER indicator above the POWER switch will glow green.
- 44 DISPLAY (see diagram below)- The back illuminated liquid crystal display (LCD) informs you of the current settings of the AV50 and is also used during set up to display the various parameters relating to Dolby Pro Logic operations.

PRO LOGIC	RESTORE	ms	LEFT	NORMAL
3 STEREO	CINEMA EQ		CENTRE	PHANTOM
SIMULATED	TEST TONE	DELAY	RIGHT	WIDEBAND
HALL MUTE	CALIBRATION		SURR	PROCESSOR

So once you've wired everything up, what's next?

First check all connections again to make sure there are no loose wires or plugs in wrong sockets, check your speakers for any shorts between terminals and turn the volume control down. Switch your TV on and select the A/V input on the TV which is connected to the composite video MONITOR OUTPUT 22 of the Alpha AV50.

Ensure that the source you wish to listen to is playing. Once satisfied, switch the Alpha AV50 power on via the front panel POWER switch and select the correct input that you want to listen to by pressing the appropriate SOURCE switch on the Alpha AV50 or on the remote handset.

Increase the volume control of the Alpha AV50 and you should hear sound from the selected source coming from your loudspeakers. If this is not the case, try other inputs on the Alpha AV50 and/or recheck your system connections. The fault finding guide at the end of these instructions will also help you.

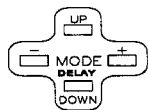
Once your system is working it is important to balance it for your components and room environment.

### SET UP MODE : SYSTEM BALANCING

Set up mode allows you to customise default settings which are recalled when the Restore button 10 is pressed and to adjust the rear channel time delay and centre speaker mode. The stored settings can be recalled by pressing the green Restore button on the remote control.

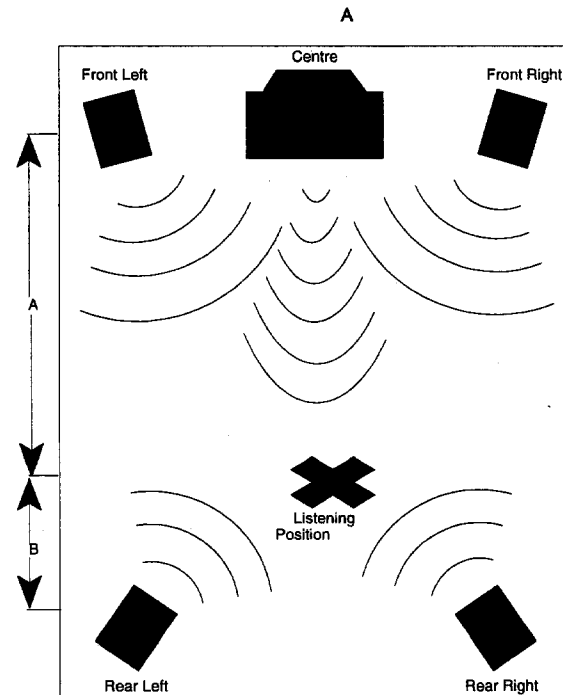
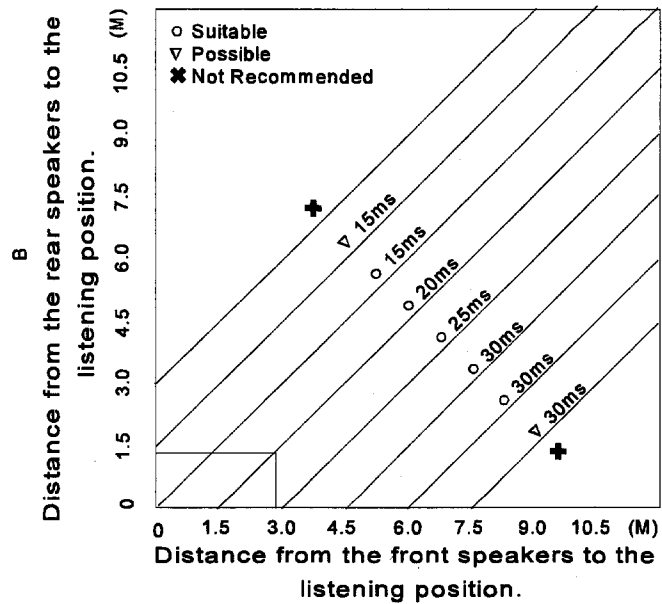
If your dealer has not installed the unit or you wish to modify the stored settings then select the set up mode by pressing Restore followed quickly by + in the mode section of the remote (the + key also has a small green square printed above it to help you remember the key). The RESTORE legend on the display will flash to indicate you are in set up mode.

REMOTE CONTROL



**DELAY TIME:** Use the + and - keys to adjust the DELAY TIME - Surround information is delayed to the rear channels for psychoacoustic reasons. The range is adjustable and indicated on the display in 1ms intervals. In Dolby Pro Logic mode only the range is adjustable between 15 and 30 milliseconds (ms), and is commonly set at 20ms for most installations. In HALL and SIMULATED modes the range is adjustable from 1ms to 32ms. The optimum delay time does depend on the listening position. Use the chart below to determine the delay time for the size of your room and seating position. For example, when the distance from the front speakers to the listening position is 3 metres and the distance from the rear speakers to the listening position is 1 metre, the optimum delay time will be 20 ms.

Listening position and optimum delay time for playback with Dolby Pro Logic surround



**MODE:** - Use the UP or DOWN keys to select the mode in which you normally wish the selected input to operate. Choose between the following options:

- Dolby Pro Logic** - For full surround sound decoding including rear channel loudspeakers.
- Dolby 3 Stereo** - AV mode for three front speakers and no rear loudspeakers.
- Stereo** - For stereo hi-fi use.



## CENTRE SPEAKER MODE

The CENT OFF button, **K**, on the remote control is used, in set up mode only, to set the centre speaker mode. It has no effect in Stereo mode. This setting is common for Dolby Pro Logic and Dolby 3 Stereo. Different settings can be made for the HALL and SIMULATED modes.

The following legends illuminate on the LCD display to indicate the selected centre speaker mode.

**Normal** - For a standard centre channel loudspeaker.

**Phantom** - For no centre loudspeaker. This mode may be of benefit if your left and right loudspeakers are of very high quality and you prefer a simple system without a centre speaker.

NOTE: In **Dolby 3 Stereo** mode you do not get the phantom option.

**Wideband** - For larger centre loudspeakers capable of working down to low frequencies (50Hz or below).

## TEST TONE MODE

Pressing the TEST/FUNC button on the remote control will put the AV50 in TEST TONE mode. This is an ideal test for making sure all your speakers are connected properly and will produce a sequential burst of noise through your speakers starting with left, centre, right and then rear. The signal is directed to each speaker in turn every 2-3 seconds. You should adjust the centre and rear volumes via the remote control until you are happy that all loudspeakers sound equally loud at your listening position. The TEST TONE legend on the LCD display will illuminate and the current active speaker legend will flash. If the Centre or Rear channel levels are adjusted the noise will immediately be directed to the speaker whose level is being set. To exit the TEST TONE mode press TEST/FUNC for a second time. TEST TONE is not available in STEREO mode and if you select STEREO mode you will exit TEST TONE mode.

**EFFECTS** - The HALL or SIMULATED effects can be added and set for each individual input, except TAPE, if required. The selected effect overrides any Dolby mode currently selected. When the EFFECT is turned off the last selected Dolby mode will be turned on again. The two available effects can be selected by scrolling through them by pressing the EFFECT button on the remote control handset.

## EXITING SET UP MODE

To exit from the set up mode press Restore for a second time. The RESTORE legend will stop flashing and then go off after a few seconds.

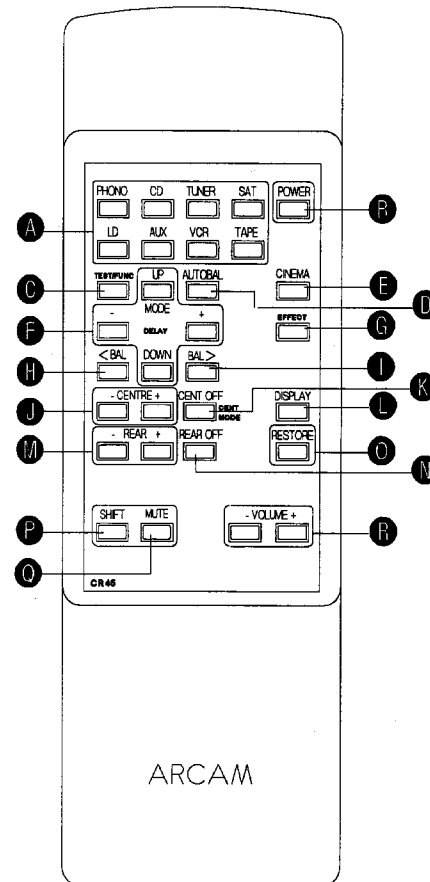
The Alpha AV50 has now been set to your personal settings which you will be able to recall at anytime by pressing Restore on the remote control.

Further system tuning will be required if you have a subwoofer. You will need to adjust its level control and tune the crossover frequency to integrate smoothly with your main loudspeakers. Try a variety of source materials to help you make these adjustments until you are happy with the sound. The subwoofer instructions may also provide advice on system balancing. Do not be concerned if the level adjustment on the sub-woofer needs to be set near maximum to achieve the right balance.

## REMOTE CONTROL COMMANDS

Most functions on the remote control are straightforward and obvious to use.

There are a number of functions described below that will allow you to optimise the way you use your system. Letters in the left hand column refer to the remote control drawing.



- A** INPUT SELECTORS: These switch the amplifier to the required input. The PHONO button has no effect on the AV50.
- B** POWER: Switches the amplifier on or off from standby. In standby mode all inputs and outputs are muted, except the MONITOR OUT, TAPE OUT and VCR OUT, to enable you to make unattended VCR recordings provided you have selected the appropriate input before putting the unit in standby mode. We recommend that you disconnect your amplifier from the mains if it is to be left unattended over a long period of time, e.g. a holiday.
- C** TEST/FUNC: Switches the TEST TONE on/off in Set up mode only. It has no function in normal use.
- F** MODE keys : UP and DOWN buttons will cycle the Alpha AV50 through the three primary operating modes. The + and - buttons have no function during normal operation and are used only in Set up Mode to adjust the delay time.
  - DOLBY PRO LOGIC feeds sound information through rear speakers and front speakers (L, R & C). Use this mode for surround encoded sources. Video tapes and discs with surround encoding can be identified by looking for the Dolby Surround logo.

- Dolby 3 Stereo feeds sound information through front speakers. (L, R & C), but not rear speakers. You should use either this mode or stereo mode for non surround encoded video sources. Stereo mixes vary so that it is worth trying this and STEREO mode to see which one you prefer. If your system has no rear loudspeakers, use this mode for surround encoded material.
- STEREO is real stereo. For optimal Hi-Fi sound quality the Dolby Surround processing circuits are actually bypassed when switched to STEREO. This prevents the stereo signal being affected by unnecessary circuits and retains the maximum fidelity. Use Stereo for your regular hi-fi sources or for non surround encoded video material.

**E** CINEMA: Switching on Cinema EQ (Equalisation) reduces the treble output of the centre channel. Cinema EQ can improve films recorded with excessive treble and sibilance. The LCD display CINEMA EQ legend will illuminate when this mode is on.

**G** EFFECT: Scrolls through the available effects: None, HALL or SIMULATED. This feature is useful to enhance non-surround encoded sources.

HALL switches in a reverberation effect giving added ambience through the rear channels. SIMULATED provides a simulated surround effect sound. The HALL or SIMULATED legend on the LCD display on the front panel will indicate which effect is currently selected. You can trim the amount of EFFECT by use of the rear +/- level buttons (See **M**). NB: Selecting one of the EFFECTS will override any Dolby mode selected.

**K** CENTRE OFF: Switches the centre channel off or on. Switching the centre channel off is also useful for Karaoke and for nulling out unwanted sports commentators! This function is not available in STEREO MODE or during set up. In Dolby MODE the MUTE and CALIBRATION legends illuminate and CENTRE flashes on the LCD display. In effects or EXT DECODER (PROCESSOR) modes MUTE illuminates and CENTRE flashes. It cannot be selected if the main MUTE, **Q**, has already been selected.

**L** DISPLAY: This button switches off the front panel display.

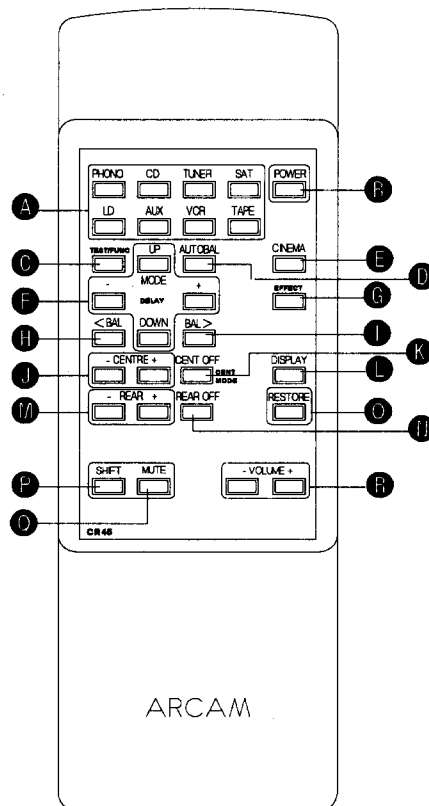
**N** REAR OFF: Switches the rear channel off or on. Useful to demonstrate the effectiveness of the surround effect. This function is not available in STEREO or Dolby 3 Stereo MODE or during set up. When selected MUTE illuminates and SURR flashes on the LCD display. It cannot be selected if the main MUTE, **Q**, has already been selected.

**J** CENTRE +/-: Trims the level of the centre speaker in 1dB steps. This function is not available in STEREO or EXT DECODER (PROCESSOR) mode.

**M** REAR +/-: Trims the level of the rear speakers in 1dB steps. This function is not available in STEREO, DOLBY 3 STEREO or EXT DECODER (PROCESSOR) mode.

When any of the +/- buttons are pressed the current level is shown on the LCD display. The level display is blanked after 10 seconds if no further adjustments are made. The main LEFT/RIGHT and CENTRE or REAR MUTE are cancelled when these buttons are pressed. The settings are common for the Dolby modes. Individual settings can also be made for both the HALL and SIMULATED effect modes. The range adjustment is -12dB to +6dB for Dolby modes and -12dB to +15dB for the effects modes.

Note: Not all films are encoded for surround identically. It is useful to trim the rear or front levels slightly for some recordings.



**O** RESTORE: Restores the AV50 to the condition saved in the set up mode. This is very useful if the centre and rear levels have been adjusted afterwards as it restores them to the saved values. The operating mode and any functions such as Cinema EQ that were saved during set up are also restored. The RESTORE legend will illuminate for about 3 seconds.

Note: To enter the set up mode press Restore quickly followed by + (mode), see Set Up Mode selection for more details.

**Q** MUTE: Mutes and un-mutes the sound to all loudspeaker and preamp outputs. MUTE flashes on the LCD display.

**R** VOLUME: Master volume control for the amplifier; this drives the motorised volume control on the front panel. Note that a volume up or down command from the remote will automatically un-mute the amplifier if MUTE is on.

The following buttons on the remote control handset have no function on the AV50. This is because the remote handset can also be used on the Arcam Xeta One and Xeta 2 home cinema amplifiers.

- D** AUTOBAL
- H** <BAL
- I** >BAL
- P** SHIFT

SHIFT can be used simultaneously with the VOLUME, MUTE, POWER or INPUT SELECTOR buttons to control functions on the Arcam Delta Black Box 500 outboard digital to analogue converter unit.

**DIRECT** - for the best sound quality in Stereo or Surround modes. Pressing in Direct on the amplifier bypasses the bass, treble and balance controls to give an overall cleaner sound.

As supplied from the factory the Alpha AV50 will automatically change to STEREO mode when you select a non-video input (e.g. tuner or CD). When switching back to a video input it will default back to what it had been previously set to, for example Dolby 3 Stereo. These settings can be changed and stored during set up if required. If Dolby Pro Logic has been stored in set up mode for that input, pressing Restore on the remote will restore Dolby Pro Logic.

Turn your TV volume down or mute its internal speaker(s) otherwise it will upset the balance of surround sound created by the Alpha AV50.

When positioning your front and centre speakers aim to get them all at roughly the same height. Ensure that the centre loudspeaker is magnetically shielded. Check with your dealer if in doubt.

Don't underestimate the importance of the centre speaker. Much of the soundtrack of a film is dialogue routed through the centre channel/loudspeaker. A poorly designed centre speaker will result in compressed dynamics, distortion and loss of detail. Speakers used for left, right and centre channels should be of a similar tonal balance or come from the same manufacturer.

#### **VARIOUS UPGRADE PATHS ARE AVAILABLE**

The Alpha AV50 can be used with an Arcam Alpha 8P or Alpha 9P power amplifier to drive the front left and right speakers. For even better results you can bi-amplify the front speakers using 2 x Alpha 8P or 9Ps whilst a third Alpha 8P or 9P could be added to bi-amp the centre speaker. You could also add extra power amplifiers to drive the rear loudspeakers if required.

#### **CONNECTING THE ALPHA AV50 TO EXTERNAL POWER AMPLIFIERS**

The Alpha AV50 can be used as the control centre with external power amplifiers being employed for higher output power or for improving the sound quality. Connect your additional power amplifier(s) to the appropriate sockets as described below.

- ⑨ **SURROUND OUT** - Provides an output for external power amplifiers for the rear channels if required.
- ⑩ **SUB OUT** - Provides an output for an active (powered) sub woofer. If used with a separate power amplifier and subwoofer loudspeaker then a proper bass crossover filter should be used in addition.

- ⑪ **CENTRE OUT** - Provides an output for an external amplifier for the centre speaker(s).
- ⑫ **LEFT AND RIGHT OUT** - Provides an output for an external power amplifier for the front left and right channels if required.

#### **CONNECTING THE ALPHA AV50 TO AN EXTERNAL 5.1 CHANNEL DECODER**

To connect the AV50 to a 5.1 type decoder connect the external processor's output sockets to the appropriate **PROCESSOR INPUTS** of the AV50 (marked ⑳ to ㉓ inclusive) and press the front panel **EXT DECODER** button ㉔. The **PROCESSOR** legend on the display will illuminate. The preamp out sockets, ⑨ - ⑫ inc. are also available for use with external power amplifiers if required (see previous section).

#### **OTHER UPGRADES TO YOUR SYSTEM**

The digital output from a Laser disc player (which is normally an optical connection) may be fed into an external digital to analogue convertor (DAC) such as an Arcam Black Box 50 or 500, for improved sound quality.

Cables can make or break a system. The quality of interconnects (audio, video and digital) and speaker cables you use will be a limiting factor on the performance of your hi-fi/home cinema system. The better the cable the better the sound. As a guide plan to invest at least 10% of the value of your equipment in cables.

#### **SOURCES OF SURROUND ENCODED MATERIAL**

The majority of films on video, laser discs and broadcast TV have surround sound - look for the Dolby Surround logo.

Surround material requires a stereo source which can be any of the following:

A stereo TV or TV tuner (NICAM), A hi-fi stereo (NICAM) video recorder, A laser disc or DVD player, A stereo satellite receiver or cable system

The Alpha AV50 is compatible with all of these.

## INITIAL ADVICE

Please ensure that you have read the instructions and are operating the equipment accordingly.

Check all cables to your speakers and other components for any loose or incorrect connections.

Ensure that the rest of the components making up your system are operating correctly. A fault can occur in another component or connecting lead that might appear to be an amplifier problem.

The information on the display will tell you what modes the amplifier is set to.


It is possible to reset the AV50 to the factory set defaults by

the following method:

1. Press the RESTORE button on the handset.
2. Press the front panel MODE button within 3 seconds and the CALIBRATION legend on the display will begin to flash.
3. Press the front panel EXT DECODER button within 3 seconds.

All the segments on the display will flash to indicate a complete reset.

If any problems still persist you may find the following suggestions useful.

<b>SYMPTOM:</b>	<b>NO SOUND OR FAINT SOUND</b>
<b>THINGS TO CHECK:</b>	<ul style="list-style-type: none"> <li>▪ Are the speakers connected correctly?</li> <li>▪ Is the source you wish to listen to connected and operating correctly?</li> <li>▪ Is the correct input selected?</li> <li>▪ Is the unit switched on and the POWER LED green?</li> <li>▪ Is the volume turned up?</li> <li>▪ Is the mute switched off?</li> <li>▪ Is the tape monitor  selected?</li> </ul>
<b>SYMPTOM:</b>	<b>NO SOUND FROM ONE LOUDSPEAKER</b>
<b>THINGS TO CHECK:</b>	<ul style="list-style-type: none"> <li>▪ See points listed above.</li> <li>▪ Is the balance control set to centre position?</li> </ul> <p>For the centre or rear channel: ensure these are not switched off via the remote. Also try adjusting the channel volume.</p>
<b>ADVICE:</b>	To check a source component, swap the phono leads over (L with R) at the source equipment only. If the fault changes over to the other channel, then the fault is in the source component or the cable.
<b>SYMPTOM:</b>	<b>SOUND NOT COMING OUT OF REAR SPEAKERS</b>
<b>THINGS TO CHECK:</b>	<ul style="list-style-type: none"> <li>▪ Is Dolby Pro Logic selected? The relevant legend on the display should illuminate.</li> <li>▪ Are the rear speakers connected properly?</li> <li>▪ Have rear speakers been switched on (via the remote)?</li> <li>▪ Are you replaying Dolby Surround encoded materials?</li> <li>▪ Has the rear volume been turned up?</li> <li>▪ Is your source operating in stereo mode?</li> </ul>
<b>ADVICE:</b>	Even on Dolby Surround encoded material, sound does not come out of the rear speakers all of the time; the amount of rear level also varies from film to film.
<b>SYMPTOM:</b>	<b>SOUND COMING OUT OF REAR SPEAKERS WHEN MATERIAL IS NOT DOLBY SURROUND ENCODED</b>
<b>ADVICE:</b>	There is nothing to check here. Sometimes on normal broadcasts phase differences in the two channel recording can confuse the surround steering circuitry, allowing certain signals to be heard from the rear speakers. You can of course switch off the rear speakers.
<b>SYMPTOM:</b>	<b>UNABLE TO MONITOR VIDEO FROM THE ALPHA AV50 ON YOUR TV</b>
<b>THINGS TO CHECK:</b>	<ul style="list-style-type: none"> <li>▪ Is your TV switched to the correct AV input?</li> <li>▪ Have you connected the TV correctly to the video monitor socket on the amplifier?</li> <li>▪ Have you selected the right video input via the source selector?</li> <li>▪ Is the amplifier properly switched on?</li> </ul>

## GUARANTEE FOR UK SALES

This equipment is guaranteed for two years from the date of purchase (parts and labour only), provided that it was originally purchased from an authorised dealer under a consumer sale agreement. (The words "consumer sale" shall be construed in accordance with Section 15 of the Supply Of Goods [Implied Terms] Act 1973).

The manufacturer can accept no responsibility for defects arising from accident, misuse, abuse, wear and tear, neglect or through unauthorised adjustment and/or repair, neither can they accept responsibility for damage or loss occurring during transit to or from the person claiming under this guarantee.

This guarantee is applicable within the UK only. It is transferable to subsequent purchasers, but the liability of the manufacturer is limited to the cost of repair of the defective parts and under no circumstances extends to consequential loss or damage.

## CLAIMS UNDER THIS GUARANTEE

This equipment should be packed in the original packing and returned to the dealer from whom it was purchased, or failing this, directly to Arcam. It should be sent carriage prepaid by a reputable carrier - NOT by post. No responsibility can be accepted for the unit whilst in transit to the factory, or an agent, and customers are therefore advised to insure the unit against loss or damage whilst in transit.

If the original packing is not available, replacement packing can be purchased from Arcam.

DO NOT CONSIGN THE EQUIPMENT TO ARCAM UNLESS YOU HAVE BEEN SPECIFICALLY REQUESTED TO DO SO BY THE CUSTOMER SUPPORT DEPARTMENT.

DO NOT UNDER ANY CIRCUMSTANCES ATTEMPT TO DISASSEMBLE THE EQUIPMENT BEFORE DESPATCH.

You can contact the manufacturer at the following address:

ARCAM Customer Support Department,  
Pembroke Avenue,  
Denny Industrial Centre,  
Waterbeach,  
Cambridge,  
CB5 9PB,  
England.

Telephone: +44 (0)1223 203203  
Fax: +44 (0)1223 863384  
e-mail: [custserv@arcam.co.uk](mailto:custserv@arcam.co.uk)

You should state clearly your name and address, the date and place of purchase together with a brief description of the fault.

In the event of equipment being returned which, after having been tested, is found to comply with the published specification, the manufacturer reserves the right to charge a reasonable fee for testing the equipment and for the return carriage.

THIS GUARANTEE IN NO WAY VARIES OR REMOVES A PURCHASER'S STATUTORY RIGHTS.

## GUARANTEE FOR SALES IN THE EUROPEAN ECONOMIC AREA (EEA)

This unit is covered by a European Economic Area warranty, provided to you under the terms of Article 85 of the Treaty of Rome 1957.

This entitles you to have the unit repaired free of charge, during the first two years after purchase, at any authorised Arcam distributor within the EEA, provided that it was purchased from an authorised ARCAM dealer or distributor within the EEA.

The manufacturer can accept no responsibility for defects arising from accident, misuse, abuse, wear and tear, neglect or through unauthorised adjustment and/or repair, neither can they accept responsibility for damage or loss occurring during transit to or from the person claiming under this guarantee.

Countries of the European Economic Area are: Belgium, Holland, Norway, Iceland, Lichtenstein, Luxembourg, Greece, Germany, France, Spain, Portugal, Eire, Italy, Austria, Denmark, Sweden, Great Britain, Finland and Switzerland. This includes the Canary Islands, the Channel Islands, the Isle of Man, Corsica and Sardinia.

This warranty remains in force for two years from the date of purchase as long as the unit remains in free circulation. Units exported from the EEA and subsequently re-imported are not subject to this warranty.

## CLAIMS UNDER GUARANTEE

This equipment should be packed in the original packing and returned to the dealer from whom it was purchased, or failing this, directly to the Arcam distributor in the country of residence. It should be sent carriage prepaid by a reputable carrier - NOT by post. No responsibility can be accepted for the unit whilst in transit to the dealer or distributor and customers are therefore advised to insure the unit against loss or damage whilst in transit.

For further details contact Arcam at:

ARCAM Customer Support Department, Pembroke Avenue, Denny Industrial  
Centre, Waterbeach, Cambridge, CB5 9PB, England.  
Telephone: +44 (0) 1223 203203 Fax: +44 (0) 1223 863384  
e-mail: [custserv@arcam.co.uk](mailto:custserv@arcam.co.uk)

## GUARANTEE FOR SALES IN THE REST OF THE WORLD

This equipment is guaranteed in the country of purchase only, provided that it was purchased from an authorised ARCAM dealer or distributor.

The manufacturer can accept no responsibility for defects arising from accident, misuse, abuse, wear and tear, neglect or through unauthorised adjustment and/or repair, neither can they accept responsibility for damage or loss occurring during transit to or from the person claiming under this guarantee.

Full details of the guarantee can be obtained from the distributor in the country of purchase.

For your convenience a list of Arcam distributors is included in the enclosed 'After Sales Care Program' leaflet. For any countries not listed please contact Arcam Customer Support directly.

## CLAIMS UNDER GUARANTEE

This equipment should be packed in the original packing and returned to the dealer from whom it was purchased, or failing this, directly to the Arcam distributor in the country of purchase. It should be sent carriage prepaid by a reputable carrier - NOT by post. No responsibility can be accepted for the unit whilst in transit to the dealer or distributor and customers are therefore advised to insure the unit against loss or damage whilst in transit.

# Technical Specifications

## Continuous power output per channel

Left + Centre + Right,	8 $\Omega$ , 20Hz - 20kHz	50W each
	4 $\Omega$ , 20Hz - 20kHz	75W each
Single front channel,	8 $\Omega$ , 1kHz	55W
	4 $\Omega$ , 1kHz	75W
Rear channels,	8 $\Omega$ , 1kHz	50W each
	4 $\Omega$ , 1kHz	75W each
THD, 1kHz, 80% maximum output		0.03%
Peak current rating		$\pm$ 10Amps

## Line Inputs (stereo mode)

Frequency response	$\pm$ 0.5dB, 20Hz - 20kHz
S/N ratio (CCIR)ref rated output	90dB
Input sensitivity	220mV nominal (Max input level 4.5 V)
Input impedance	7k $\Omega$
Overload margin	17dB

## Processor Inputs

Input sensitivity	220mV
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## Preamp Outputs

Nominal output level	700mV
Maximum output level	5V
Output impedance	250 $\Omega$

## Video Section

Video signal type	Universally compatible
Nominal input/output level	1V P-P, 75 $\Omega$
Maximum input level	2V P-P
Frequency response	5Hz - 10MHz, -3dB

## General

Operating voltage	230V $\pm$ 12%, 115V $\pm$ 12%
Maximum power consumption	600VA (10VA in Standby mode)
Size (overall) W/D/H mm.	430x330x100
Weight (nett)	7.7kg
(packed)	9.1kg

E&OE



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